

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -3 EXAMINATION- 2021

B.Tech-VII Semester

COURSE CODE: 19B1WCI734

MAX. MARKS: 35

COURSE NAME: Object Oriented Technologies Using JAVA

COURSE CREDITS: 3

MAX. TIME: 2 Hours

Note: All questions are compulsory. Carrying of mobile phone during examinations will be treated as case of unfair means.

Que.1:

- (a) [03 Marks] Write a Java program for exception handling to handle the invalid entries in the list of the command line arguments.
- (b) [03 Marks] Explain the concept of dynamic binding in Java by having two methods to get and display the data members in the super class.

Que.2:

- (a) [03 Marks] Is String a primitive data type in Java? Write a program to convert String from back to its data types using parse() methods?
- (b) [03 Marks] What happens, if a class implements two interfaces having exactly same method with same signature (consider one as default and another abstract)?

Que.3: [3 Marks] Define a class Stack in Java with methods to insert and delete the data (int type) from the stack. The stack must be implemented using array.

Que.4:

- (a) [03 Marks] If the input is "which university out", then what is output of the following program.

```
class ABDE{
    public static void main(String args[]) throws IOException{
        string str;
        BufferedReader obj = new BufferedReader(new
InputStreamReader(System.in));
        do{
            str = (char) obj.readLine();
            System.out.print(str);
        } while(!str.equals("strong"))
    }
}
```

(b) [03 Marks] what is the output of the following program if input given is "fgh'nlm/qlrs"

```
class Input_Output
{
    public static void main(String args[]) throws IOException
    {
        char c;
        BufferedReader obj = new BufferedReader(new
InputStreamReader(System.in));
        do{
            c = (char) obj.read();
            System.out.print(c);
        }while(c != '\n');
    }
}
```

Que.5: [02x7 Marks] Answer the following questions-

- (a) What are the advantages of multithreading?
- (b) What are the states in the lifecycle of a Thread?
- (c) What is the start() and run() method of Thread class?
- (d) What is the synchronization process? Why use it?
- (e) What is the difference between preemptive scheduling and time slicing?
- (f) Describe the purpose and working of sleep() method.
- (g) Is it possible to start a thread twice?